**Robert Frost Elementary School**

**2013 Quiz Bowl / Challenge Center Grade 5**

**You will be given a written quiz on these questions on November 4**

1. Name three ratios equivalent to 2:100. **1:50, 4:200, 6:300, 8:400 (many answers)**
2. What are the factors of 24? **(1, 2, 3, 4, 6, 8, 12, 24)**
3. What are the first 12 multiples of 12? **12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144**
4. What is the sum of 190 and 82? **172**
5. What are six ways you can classify triangles? **Acute, obtuse, right, scalene, isosceles, & equilateral**
6. How do you write the following number in standard

form: 17 billion, six million, three hundred nine? **17,006,000,309**

1. How would you find the volume of a rectangular prism? **Measure the length, width, and height of the rectangular prism and multiply the measurements.**
2. How would you find the area of a triangle? **Measure the base and the height of the triangle and divide it by 2.**
3. If the diameter of a circle is 15 cm., what is the radius? **7.5 cm**
4. State the order of operations. **Parentheses, Exponents, Multiplication and Division, and Addition and Subtraction**
5. What is the prime factorization of 72? **2³ x 3²**
6. What is the difference between a mixture and a solution? **A solution is a mixture where one of the substances dissolves in the other.**
7. Describe the solute and solvent in a solution. **The substance that dissolves is called the solute. The substance that does not dissolve is called the solvent.**
8. How could you use a balance to measure the relative concentration of two unknown solutions**? Take out equal volumes of each solution, empty them in the same type of cup, and place them on either side of the balance. The more concentrated solution will have a larger mass.**
9. What is the conservation of matter state**? That matter can never be destroyed, but it can be changed.**
10. Describe the composition of the air we breathe. **78% nitrogen, 21% oxygen, 1% of dozens of other gases such as carbon dioxide.**
11. What do readers call it when they state a theory about a character, the setting, or a conflict in the story

using evidence from the text? **Inferring (Inference)**

1. Name all of the ways an author can organize an informational text: **description, compare/contrast, problem/solution, cause/effect, or sequence.**
2. What is a struggle a character has with themself,

another character, nature, or society called? **Conflict**

1. What is the lesson of a fictional story called? **Theme**